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ACCOUNT

OF A

RESECTION

OF THE

RIBS AND THE PLEURA.

READ BEFORE THE ROYAL ACADEMY OF SCIENCES OF THE INSTITUTE OF FRANCE,

APRIL 27, 1818.

BY M. LE CHEVALIER RICHERAND,

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TRANSLATED BY THOMAS WILSON

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READ REFORE THE ROYAL ACADEMY OF SCIENCES OF THE INSTITUTE OF FRANCE

GENTLEMEN,

I Have the honor to inform you of a Surgical operation with which the records of the art furnish no example: a new operation demanded by necessity and justified by success.

M. Michellau, Surgeon at Nemours, for three years had been afflicted with a cancerous tumour on the region of the heart, the eradication of which a neighbouring Surgeon performed in January last. At the removal of the first apparatus, a bloody fungus appeared in the centre of the wound:

cauterised at each dressing, it grew again with activity. A second operation was attempted: they penetrated more deeply; after having laid the ribs bare, they went to the pleura: in the mean time new fungi displayed themselves and were reproduced, notwithstanding repeated cauterisations, by means of which they endeavoured to repress them. Grieved at not reaping any benefit from so many, and so painful operations, the patient came to Paris towards the end of March, fully determined to suffer every thing, in hopes of being delivered from so dreadful a disorder, and of escaping an inevitable death.

At this period an enormous fungus was springing up in the wound. From this brown and flimsy vegetation oozed an abundant sanies, reddish, and so fætid that it was impossible to remain a quarter of an hour near the patient without renewing the air of the apartment. The pains, nevertheless, were moderate; he experienced neither sweats nor colliquative diarrhea; and although tormented with an old and habitual cough, the

patient, aged 40 years, of a robust complexion, presented the most encouraging moral dispositions.

In this state of things, it was resolved to attempt a re-section of those ribs from which it was thought the cancer originated. Entrusted with this operation, I informed the patient, that very probably I should be obliged to cut away a portion of the pleura: he did not hesitate to submit himself to that operation, all the consequences of which we did not conceal and of which he was able to appreciate.

All things being ready, I proceeded thereto on the 34st of March, encouraged in this bold undertaking by the enlightened as well as active assistance of my colleague Professor Dupuytren, and by other persons of the art who were so good as to lend me their co-operation. The patient presented himself to the instrument, refusing to be held by the Surgical aids, and promising a firmness which did not belie itself.

I began by enlarging the wound, giving it a crucial form: I thus uncovered the sixth rib which appeared to me inflated and uneven in about four inches of its length. With a buttoned bistouri the point of which I conducted along the upper and lower rims, I cut the intercostal muscles; afterwards with a small saw whose denticulated edge was only fifteen lines in length, I sawed the bone at the two extremities of the part affected. This being done, I detached from the pleura the fragment thus isolated, by employing therefor a simple spatula: I found in this an unexpected facility—a facility which proceeded from the condensation of the pleura beneath the bone as the sequel of the operation has proved.

The seventh rib was laid bare for the same extent, isolated and detached in the same manner, but with much more difficulty, and not without a slight tearing. The pleura discovered itself then evidently diseased, thick, fungous, and giving birth to the vegetation in the space of the portion of

the ribs taken away. The cancerous state extended itself above the sixth rib so that the membrane appeared affected in about eight inches square of its extent. To make no excision of it was to leave incomplete an operation which lasted for twenty minutes, and until the present moment successful. Each of the assistants prepared himself with something capable of stopping the excessive hemorrhage which was to be dreaded at the moment I should make the section of the intercostal arteries. I cut the pleura with scissors whose blades were crooked on the side of the edge; and either that the section, operated by this instrument which cuts less in sawing than in pressing, and bruises the tissue which it divides, had determined the retraction of the vessels, or that their size had diminished in consequence of the antecedent cauterisations, there did not run a drop of blood; but at this moment the exterior air made an irruption into the chest, rushing in with violence and compressing the left lung which, with the heart enveloped

in the pericardium was borne towards the orifice. I sought, by placing thereto the left hand, to moderate the entrance of the air and to prevent suffocation, which appeared imminent, whilst with the right hand I applied on the wound a large bolster spread with cerate. The entrance of the air was suddenly stopped by this greasy cloth, large enough to cover not only the wound, but moreover all the side of the chest corresponding. I fixed above a large and thick sindon of lint; I covered it again with some bolsters, and supported all the apparatus with a rolled bandage, middling tight.

The anxiety and difficulty of respiration were extreme during the twelve hours which succeeded the operation. The patient passed the night entirely in a sitting posture. Towards morning, sinapisms applied to the soles of the feet and to the inner surface of the thighs rendered the respiration more easy. From that moment the pulse grew higher and the strength was reanimated. The patient took nothing else for his drink and

diet, than an infusion of flowers of the Linden tree and of violets sprinkled with some drops of water distilled from Orange flowers, and sweetened with the syrup of Gum Arabic. Three days passed thus: the fever was abated and the oppression sufficiently great to deprive the patient of sleep. The first dressing was removed ninety six hours after the operation. The pericardium and the lungs had contracted adherence with the contour of the quadrilateral aperture, a kind of window made in front of the heart. Happily the adhesion between the pericardium and lungs was not complete; for, from the sixth to the twelfth day, through want of this adhesion, an abundant serum had run from the chest and gushed out at each dressing. The quantity of serum which ran by that, in the space of twenty four hours, might be reckoned a half-pint. On the fifteenth day, this serum, produced by an inflammation of the surfaces, ceased to run, and on the eighteenth day the adhesion between the pericardium and the lungs was completed. The air thence forward ceased

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to introduce itself through the wound, the patient could lay on his side, and his sleep and appetite were entirely restored.

The wound, although until then dressed with a greasy linen rag immediately applied to its surface, rapidly diminished and exhibited a better appearance. On the twenty-first day the greased linen rag was dispensed with, and they dressed as a simple wound, the surface covered with fleshy pimples, which sprung up from the lungs and the pericardium.

The patient who had for some days made trial of his strength in a garden belonging to the house which he inhabited, could not resist the desire of riding in a carriage through the streets of the capital. Having experienced a fatigue from a ride of five hours in which he visited the school of Medicine and caused to be shewn to him the parts of his ribs and of his pleura deposited in the cabinets of that establishment, nothing could prevent him from departing the twenty-seventh day after the operation, or from re-

turning to his place of residence, where he arrived without accident, provided with a piece of boiled leather large enough to cover the cicatrix completely, when perfected.

I suffered not the opportunity to escape which presented itself to prove anew the perfect insensibility of the heart and pericardium: nothing warned the patient of the touch of the fingers softly applied to the organs. In the state of life, the pericardium in man is possessed of such a transparency that the heart is seen through this membrane as if it were under a glass bell perfectly diaphonus, it is so much so that we might have been led to believe there were no envelop. It is so far from being so that this complete transparency is found on the pericardium of dead bodies, and it appears to me, that, in this point of view, this membrane may be compared to the glass of the eye which becomes dim and obscure at the approach of death.

A large aperture, with loss of substance made in the contour of the chest, not being necessarily followed by suffocation, a bloody

discharge, or by a mortal inflammation of the organs towards which the exterior air finds there a free access, it appears to me, there could be effected, in a disease to which the patient would succumb, for example a dropsy of the pericardium, I say, there could be effected in front of the heart an aperture which would not only permit the water, in which that organ is immersed, to discharge itself; but also to effect a radical cure of the disorder by determining the adhesive inflammation of the surfaces, by processes similar to those used for the cure of the hydrocele.* The same operation would be justified in order to expose the lungs partially affected and in taking away some parts of them by binding them with ligatures. It will certainly be said that like enterprises are rash; but how

^{*}M. Richerand requests his professional brethren to whom a patient not too much debilitated by age or disease, afflicted with the hydropericardium, should present himself, to address the same to him; if they do not prefer to attempt themselves the operation he proposes.

many operations, deemed impossible within the last fifty years, obtain in our days the most brilliant and best attested success.

I will not occupy much longer the time you have been pleased to grant me: it is for those among you who are particularly engaged in the improvement of surgery, to apprise me whether in the views I propose, I am not left to misconceive by a vain desire of improvement it is to those to whom it belongs to judge whether the fact which I submit to their sagacity, can contribute in some measure to the advancement of the science, as well as the comfort, of humanity.

April 28, 1818.

REPORT

of M. M. DESCHAMPS AND PERCY, ON A MEMOIR READ BY PROFESSOR RICHERAND, BEFORE THE ACADEMY ON THE 27th of APRIL, ENTITLED "AN ACCOUNT OF THE RESECTION OF THE RIBS AND THE PLEURA."

The Surgery of France for a long time was unrivalled. Now that this so essential branch of Medicine is every where cultivated with an ardor which most potentates have been particularly attentive to excite and reward, the Surgeons of France are far from having lost their ascendancy. Those of England are almost the only ones who, on some points, have equalled them; and without presumption we may justly believe that, as our efforts always proceed in redoubling, and our improvements give not way to our emulators in every country, these very fortunate in equalling us, will never happen to surpass as.

We must concede, that, united for the honor of their profession and the welfare of humanity, by an esteem and a reciprocal consideration, there exists between the Surgeons of France and of England a contest of

talents, success, and activity such as for some years past particularly have made the art march with giant pace towards perfection. The English have effected astonishing cures and lay until then unheard of operations. The French have gone still farther in sometimes following and rectifying the way traced out for them by their neighbours, but oftener all at once opening themselves new roads. No sooner do they learn that a bold and unusual operation has been performed by their foreign brethren with success than they have to oppose to it, with so much good fortune, a succession of others as little known and at least as bold; and in the midst of this conflict of the invention of genius and success, in which the advantage has always been to the French, the wondering art has extracted immense resources, and moreover has seen from day to day, the increase of its domain.

The operation concerning which M. Richerand has informed the Academy at a former sitting, is one of those brilliant con-

quests of which French surgery has a right to be proud. That M. Abernethy had dared, the first, to put a ligature on the external iliac artery, in an aneurism seated at the uppermost extremity of the thigh, is an act of surgery truly efficacious and transcendant, but that our colleague had proceeded to attack as far as the inner part of the chest, even nigh the heart, the roots of a cancer which the ribs appeared irrevocably to hide from the reach of the instrument, is also a stroke of extraordinary surgery and in some sort heroic, in which we know not which most to admire, either the conception of the plan, or the ability of the execution!

We will make the remark before all, that M. Richerand has had to do with a patient who was as determined to undergo every thing as his Surgeon was to undertake; and equally as convinced that the only chance left him to escape the most dreadful death was an operation on the issue of which he (a man of the profession) was very far from deceiving himself.

In a state of things so encouraging, supported by the learned co-operation and the steady sang-froid of Professor Dupuytren, and having around him surgical aids adroit and enlightened (such as Dr. Breschet) M. Richerand could trust to all the strength of his talents, and display all the power of a hand a long time exercised in anatomical labours, and already tested by a great number of beautiful and difficult experiments.

You recollect, Gentlemen, that the cancerous tumor which laid in the region of the heart of Mr. Michellau, had been several times undertaken, cut away, cauterised, &c. and that it always was reproduced with an appearance more and more formidable: it is because the bottom, because the base concealed under the ribs could not have been accessible either to steel, iron, or to fire, and that in this entrenchment the hydra had braved these means moreover so powerful.

The ribs, in these several attempts, had been laid bare; they must even have been alterated by the action of the cautery. Perhaps in the sequel they might have exfolia-

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ted so as to form a double sequestration which would at length have manifested the cancerous root.

But would it not have been the height of imprudence and timidity to expect a long time from nature a like effect, whilst art, without being rash, could in a few moments produce it, and in a manner still more complete.

Thus the portions of the two ribs which covered the interior fungus, and through the interstices of which its vegetations, incessantly springing up, again made irruption, were sawed and taken away, after having been isolated from the muscular parts and others to which they adhered. There was searcely any effusion of blood, to the astonishment of the operator and assistants, so that one could see immediately and without any obstacle, the real seat and extent of the disease which M. R cherand eradicated as far as he could, by cutting away from the Pleura a surface of eight inches square which had become thick and evidently carcinomatous.

Scarcely was this shred separated and extracted than the air rushed through the

wound, into the thoracic cavity of that side, and gave place to anguish and evident symptoms of suffication which caused anxiety for a moment; but they soon closed the aperture with a linen cloth plastered with cerate, and this, aided by a soft compression, had soon re-established the calmness and natural respiration.

In the sequel, this twofold accident was so trifling when the wound was uncovered, either for dressing or facilitating the evacuation more or less abundant of the serosity furnished by the irritated pleura, that time could be taken to examine the heart, which continually presented itself at the orifice, to be assured of its little sensibility, by touching it, and to observe the transparency, almost glazed of its envelop: a contemplation of the most curious character, of which, the occasion so extremely rare, should singularly interest two of the most learned physiologists of our day.

The wound grew narrower by degrees, in consequence of the adhesion of the lungs with the pericardium, as well as from some fleshy granulations which raised up one

above another; and on the twenty-seventh day after the operation the patient was enabled to ride in a carriage and gratify a desire with which he was teazed, to go and see at the faculty of Medicine, the two pieces of his ribs which M. Richerand had deposited there, and which the patient would have willingly carried away.

At the end of the month, he departed for Nemours where he had fixed his residence and where he proposed to recommence his profession as Surgeon, if his cure goes on as it has done, and he has the good fortune of escaping the relapse of a disease, the ever terrible effects of which even in cases the most perplexed, the art had caused to disappear; but the hidden cause of which it is not always in its power to destroy.

It is to be wished that M. Michelleau should no more experience the cruel attacks of cancer: for his resignation and courage he meets this recompence; but should he be so unfortunate as to experience a relapse, will on that account, the proud operation of M. Richerand lose its rights to our admiration and the acknowledgements of the art? Certainly not! For this operation, rivalling the.

most famous and important of those whose recital has reached us from England for some years, was not a hazardous undertaking, nor a desperate trial; indispensable necessity had demanded it: knowledge, reason and prudence had delineated and ripened its plan; sagacity and talent presided at its execution: and it may be presumed that they who have otherwise spoken of it, were not of good faith; had been ill informed, or were not in the enjoyment of sound sense.

Completely satisfied, M. Richerand is himself well preserved from seeing in his operation only one of those expedients unforseen for an only case, and in an occurrence which would no more exhibit itself: on the contrary he has endeavoured to extend its benefits and application to other diseases, and wished to link it with a system of operations determined beforehand, and which the art should keep in reserve for unforseen, or at best, presumed affections.

Thus the fact, so honorable to them, establishing not only the possibility, but moreover the almost inocuity of the excision of a certain extent of ribs, and of penetrating into the chest by a larger or smaller aperture, this learned practitioner has extended his reflexions on a disease which is usually fatal,

which can only be recognized by symptoms a long time doubtful, and to which only slow and consequently useless remedies can be applied, to the dropsy of the pericardium, much more common than is generally believed, and which perhaps would yield to an operatory means which succeeded so well in the hydrocle of the vaginal tunic.

The business would be, after having early collected tokens the most specially descriptive of this disease, to uncover the aqueous tumor, by taking away a part of the rib or ribs which are found above it; to open the pericardium to give passage to the overflowing liquid, and to make in its cavity, injections, capable of exerting therein a slight inflammation called adhesive, which most commonly makes it dry up these kinds of collections.

We must avow, that the theory of this operation is bold: there is nothing but experience which can justify it; and it is to its author that it belongs to make the trial of it, if the chance which produced him the opportunity to handle and cure, in M. Michelleau, a disease not less formidable than the hydro-pericardium brings him with, this last affection, patients as intrepid and as determined as was the Surgeon of Nemours.

We say as much of the excision of the ligature of a part of the pulmonary substance in certain injuries of the lungs, if to practice the one or the other it should only be requisite, by taking away the ribs, to open an access for the instrument.

But in praising the desire of our colleague to be able to give an useful extension to an ingenious resource, which we should regret as well as he to see restricted to an only ease which must needs be very scarce, we cannot forget the sage advice which Celsus has given, to stop at the limits of possibility and probability, in order not to be reputed in disorders even the most desperate, to have caused him to perish whom it was your intention to save: "ne quem salvare volueris, occidisse videaris."

It is then true that there has been and can be made a window in front of the heart; it is this which the Grecian Philosopher wished, curious to espy in that organ, the play of the passions, but who did not reflect, that could the heart be observed in like manner as the countenance, it would become perhaps equally as deceifful and hypocritical.

Harvey once caused Charles II. to see a man who, by the ravages of a cariosity in the sternum and ribs, had the window in ques-

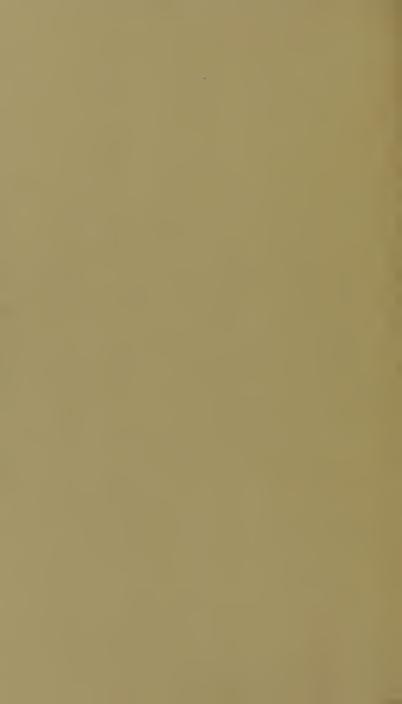
tion, on which he wore in form of a windowshutter, a large plate of silver: "There is then," eried the English Monarch, " the "heart of a living man! Is mine the same "as that?" he demanded of Harvey, "yes," answered the illustrious Anatomist. " did that of the ferocious Oliver resemble "thatthere?" "Assuredly," said Harvey, "And " that of the pusillanimous Dryden, who has so " much flattered, him and who now offers me "incense?" "All the same," continued the learned man. "So much the worse," added Charles, sadly, and taking out his purse, " take it" said he to the unfortunate man; "it " is for the lesson you have procured for your " king."

We love to remind the Academy how many titles to its esteem and good will the professor has already acquired, in whom several works, already become classical and a profound learning, have preceded his years; and we assure him that the new success he has just obtained, a success in which French Surgery prides and glories, justifies more and more the high reputation which he has acquired in his own as well as foreign countries.

DESCHAMPS.
PERCY.

Paris, May 25, 1818.





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